L Number	Hits	Search Text	DB	Time stamp
1	2639	(shaft or rod) near4 (ball or sphere or	USPAT;	2003/04/16 10:05
		spherical or cone) same (ball or sphere or spherical or cone) near3 valve	US-PGPUB; EPO; JPO; DERWENT	
2	3	spherical or cone) same (joint or connection) near4 strengthen\$4 same (ball or	USPAT; US-PGPUB; EPO; JPO;	2003/04/16 09:26
3	1	sphere or spherical or cone) near3 valve ("6367774").PN.	DERWENT USPAT; US-PGPUB	2003/04/16 09:26
4	1	("6322050").PN.	USPAT; US-PGPUB	2003/04/16 09:31
5	25	("3948533" "3949965" "4161187" "4346730" "4662392" "4719074" "4722825" "4771803" "4795133" "4810585" "4815704" "4834042" "4871621" "4932432" "4936546" "5015609" "5183068" "5297580" "5365661" "5386967" "5566923" "5906354" "5977487" "5979873" "6178638") .PN.	USPAT	2003/04/16 09:27
6	25		USPAT	2003/04/16 09:29
7	191	l	USPAT; US-PGPUB	2003/04/16 09:31
8	12	((shaft or rod) near4 (ball or sphere or spherical or cone) same (ball or sphere or spherical or cone) near3 valve) and 403/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:33
9	1044		USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:35
11	205	((shaft or rod) near4 (ball or sphere or spherical) same (attach\$4 or affix or fasten or strengthen\$3) and 403/\$.ccls.)	USPAT; US-PGPUB	2003/04/16 09:37
10	210		USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:42
12	7	(shaft or rod) near4 (ball or sphere or spherical) same (attach\$4 or affix or fasten or strengthen\$3) same valve and 403/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:46
14	502	, -	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:48
15	210	(((shaft or rod) near4 (ball or sphere or spherical) same (attach\$4 or affix or fasten or strengthen\$3) and 403/\$.ccls.) or ((shaft or rod) near4 (ball or sphere or spherical) same (attach\$4 or affix or fasten or strengthen\$3) same valve near4 (ball or sphere or spherical))) and 403/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:49
13	295	(shaft or rod) near4 (ball or sphere or spherical) same (attach\$4 or affix or fasten or strengthen\$3) same valve near4 (ball or sphere or spherical)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/16 09:53

		•		
16	2378	•	USPAT;	2003/04/16 10:06
ļ		spherical) same (ball or sphere or	US-PGPUB;	
		spherical) near3 valve	EPO; JPO;	
17	40094	(ball or sphere or spherical) near4 (notch	DERWENT USPAT;	2003/04/16 10:11
1'	40094	or v adj shaped or v adj shape or midsection	US-PGPUB;	2003/04/16 10:11
		or joint)	EPO; JPO;	
		11 31 11 11	DERWENT	
18	40	· · · · · · · · · · · · · · · · · · ·	USPAT;	2003/04/16 10:08
		spherical) same (ball or sphere or	US-PGPUB	
		spherical) near3 valve) same ((ball or		
		sphere or spherical) near4 (notch or v adj shaped or v adj shape or midsection or		
		joint))		
19	14320	(ball or sphere or spherical) near4 (notch	USPAT;	2003/04/16 10:18
		or v adj shaped or v adj shape or midsection	US-PGPUB;	
İ		or joint) same (rod or shaft or stem)	EPO; JPO;	
20	923	((ball or sphere or spherical) near4	DERWENT USPAT;	2003/04/16 10:14
20	1 323	(notch or v adj shaped or v adj shape or	US-PGPUB;	2003/04/16 10:14
		midsection or joint) same (rod or shaft or	EPO; JPO;	
		stem)) same valve	DERWENT	
21	8	(USPAT;	2003/04/16 10:17
		(notch or v adj shaped or v adj shape or	US-PGPUB;	
		midsection or joint) same (rod or shaft or stem)) same valve) and 403/\$.ccls.	EPO; JPO; DERWENT	
22	14		USPAT;	2003/04/16 10:18
		(notch or v adj shaped or v adj shape or	US-PGPUB;	== 15,51,15 10.10
		midsection or joint) same (rod or shaft or	EPO; JPO;	
		stem)) same valve) and 303/\$.ccls.	DERWENT	
23	88	(((ball or sphere or spherical) near4 (notch or v adj shaped or v adj shape or	USPAT; US-PGPUB	2003/04/16 10:21
		midsection or joint) same (rod or shaft or	US-PGPUB	
		stem)) same valve) and 251/\$.ccls.		
24	125	(rod near3 ball) adj3 connection	USPAT;	2003/04/16 10:25
1 25	0.7	(-la-5),	US-PGPUB	
25	97	(shaft near3 ball) adj3 connection	USPAT;	2003/04/16 10:22
26	548	(shaft near3 ball) adj3 joint	US-PGPUB USPAT;	2003/04/16 10:23
		·	US-PGPUB	2003/01/10 10:23
27	28	((shaft near3 ball) adj3 joint) same valve	USPAT;	2003/04/16 10:23
20	1	//shafe	US-PGPUB	
28	15	((shaft near3 ball) adj3 connection) same valve	USPAT; US-PGPUB	2003/04/16 10:23
29	10	((rod near3 ball) adj3 connection) same	USPAT;	2003/04/16 10:23
		valve	US-PGPUB	2003/04/10 10.23
30	53	(((shaft near3 ball) adj3 joint) same valve)	USPAT;	2003/04/16 10:23
		or (((shaft near3 ball) adj3 connection)	US-PGPUB	
1		same valve) or (((rod near3 ball) adj3 connection) same valve)		
31	1747	· · · · · · · · · · · · · · · · · · ·	USPAT;	2003/04/16 10:29
:		sphere or spherical or ball)) near8 (affix	US-PGPUB	
		or affixed or attachment or attach or		
22	1 1 1 1 1 1	fastener or connector or connection)		0000/01/11
32	1484	((rod or stem or shaft) near3 (truncated or sphere or hemisphere or hemispherical or	USPAT; US-PGPUB	2003/04/16 10:38
		ball)) near8 (affix or affixed or attachment	US-FGPUB	
		or attach or fastener or connector or		
		connection)		
33	176	(((rod or stem or shaft) near3 (truncated or	USPAT;	2003/04/16 10:32
		sphere or hemisphere or hemispherical or ball)) near8 (affix or affixed or attachment	US-PGPUB	
		or attach or fastener or connector or		
		connection)) same valve		
34	133	(((rod or stem or shaft) near3 (truncated or	USPAT;	2003/04/16 10:38
		sphere or hemisphere or hemispherical or	US-PGPUB	
		ball)) near8 (affix or affixed or attachment or attach or fastener or connector or		
		connection)) same valve near8 (truncated or		
		sphere or hemisphere or hemispherical or		
	<u> </u>	ball)		
				

35	141	((rod or stem or shaft) near3 (truncated or	USOCR	2003/04/16 1	0:40
		sphere or hemisphere or hemispherical or			
		ball)) near8 (affix or affixed or attachment			
		or attach or fastener or connector or			
		connection) same valve near8 (truncated or			
		sphere or hemisphere or hemispherical or			
		ball)			